CLAIMS

1. A heat-resistant assembly for protecting a boiler tube assembly formed with boiler tubes and a connecting flat rib from combustion gases, having a heat-resistant block conformed to the contours of said boiler tubes and the surface of said connecting flat rib which is placed between said tube assembly and said combustion gases, comprising:

an arm which protrudes from the surface of said connecting flat rib toward said heat-resistant block, which has a catch on the end; and

an indentation on said heat-resistant block into which said catch on said arm interlockingly engages to attach or release said heat-resistant block on said boiler tubes.

2. A heat-resistant assembly according to claim 1, wherein said catch on said arm is formed by bending the end of said arm which protrudes toward said block so that said catch is angled vertically parallel to said boiler tubes.

3. A heat-resistant assembly according to claim 1, wherein the cross section of said arm is configured to have greater expansion from the tube assembly side towards the heat-resistant block side.

4. A heat-resistant assembly according to claim 3, wherein said cross section through said catch on said arm nearer said heat-resistant block has a greater area than a cross section nearer said tube assembly, and said indentation is provided on said block to interlockingly engage with said catch in order to attach said heat-resistant block to said boiler tubes.

5. A heat-resistant assembly according to claim 1, wherein said heat-resistant block is provided with a pair of projections on both the upper and lower ends, one of said

projections facing the combustion gases, the other facing said tube assembly, which overlap with the projections on neighboring heat-resistant blocks.

6. A heat-resistant assembly according to claim 5, wherein said catch on said arm is formed by bending the end of said arm which projects toward said block so as to be angled vertically parallel to said tube assembly, and the force of gravity causes said block to descend so that said vertical catch can interlockingly engage in said indentation, and one of said projections, which overlap with said projections of the neighboring heat-resistant blocks, faces the combustion gases, and the other faces said tube assembly.

7. A heat-resistant assembly according to claim 1, wherein a space is provided at least between the end of said arm and said indentation of said block in which a fusible substance is provided which melts when the temperature of said arm exceeds a given value.

8. A heat-resistant assembly for protecting a boiler tube assembly comprised of boiler tubes and a connecting flat rib from combustion gases, having a heat-resistant block conformed to the contours of said boiler tubes and the surface of said connecting flat rib which is placed between said tube assembly and said combustion gases, comprising:

an arm which protrudes from the surface of said connecting flat rib toward said heat-resistant block and has a catch on the end;

a sleeve formed by a press which has sufficient strength; and

an indentation provided on said heat-resistant block at the side of said connecting flat rib into which said sleeve is adhered by an adhesive agent, and said catch on said arm

interlockingly engaging said sleeve to attach or release said heat-resistant block to said boiler tubes.

9. A heat-resistant assembly according to claim 8, wherein said sleeve is made of a heat-resistant substance of the same silica family as said heat-resistant block, and said adhesive agent is a high-temperature resistant adhesive.

10. An assembly method for assembling a heat-resistant assembly for protecting a boiler tube assembly formed with boiler tubes and a connecting flat rib from combustion gases, having a heat-resistant block conformed to the contours of said boiler tubes and the surface of said connecting flat rib which is placed between said tube assembly and said combustion gases, and interlockingly engaged with said boiler tube assembly by mortar, comprising the steps of:

applying said mortar to said tube assembly and said heat-resistant block separately; and

assembling said tube assembly and said heat-resistant block together after said mortar has been applied to specified portions of said tube assembly and said block.

11. An assembly method for assembling a heat-resistant assembly according to claim 10, wherein said mortar is applied in the depression between said boiler tubes and said connecting flat rib on said tube assembly, and in the depressions in the curved interior surfaces on said heat-resistant block facing said tube assembly.

12. An assembly method for assembling a heat-resistant assembly having a boiler tube assembly formed with boiler tubes and a connecting flat rib, a heat-resistant block conformed to the contours of said boiler tubes and the surface of said connecting flat rib, a catch on an arm which protrudes from the surface of said connecting flat rib toward said heat-resistant block, and an indentation on said heat-

resistant block into which said catch on said arm interlockingly engages to attach or release said heat-resistant block on said boiler tubes, comprising the steps of:

a first process for controlling the thickness of mortar, in which excess mortar which has been applied to said connecting flat rib connecting the boiler tubes is removed with a scraper using the exterior surface of said boiler tubes as a guide; and

a second process for controlling the thickness of mortar, in which excess mortar which has been applied between the curved indentations on said heat-resistant block facing said boiler tubes is removed with a scraper using the flat straight surface of said block as a guide; and

a third process for cementing, in which said indentations on said block which have been filled with mortar in specified locations are brought in contact with said catch on said tube assembly so that the mortar causes the two surfaces to adhere to each other and said tube assembly and the block are cemented to each other by the mortar.